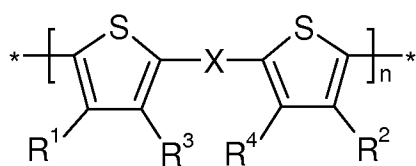


This listing of claims will replace all prior versions, and listings, of claims in the application:

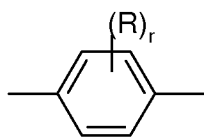
**Listing of Claims:**

1. (Currently Amended): In a transistor device containing a semiconductor or charge transport material, the improvement wherein said material comprises at least one oligomer or polymer of formula I

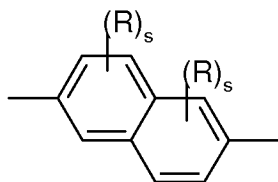


wherein

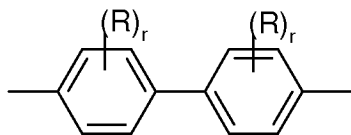
X is  $\text{-C}\equiv\text{C-}$  or is selected from formulae IIa-IId, IIf-IIi, IIm, II n and their mirror images



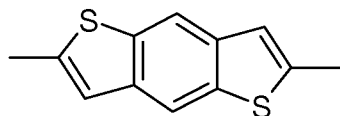
IIa



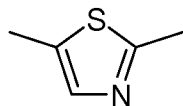
IIb



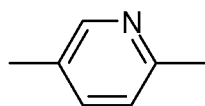
IIc



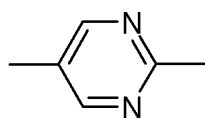
IIId



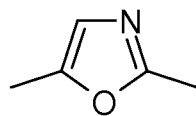
IIIf



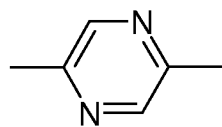
IIIg



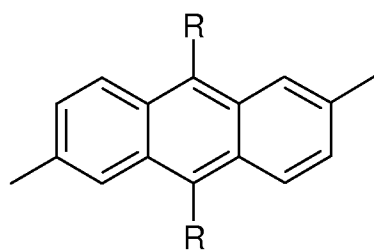
IIIf



IIIf



IIIm



IIIn

R is in each case independently H, halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-,

r is 0, 1, 2, 3 or 4,

s is 0, 1, 2 or 3,

R<sup>1</sup> - R<sup>4</sup> are independently of each other H, halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-,

P is a polymerisable or reactive group,

Sp is a spacer group or a single bond, and

n is an integer > 1,

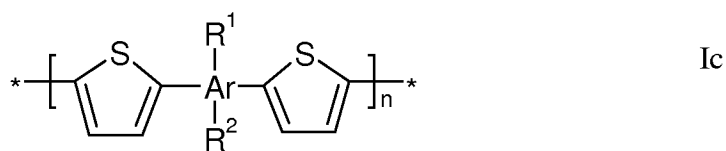
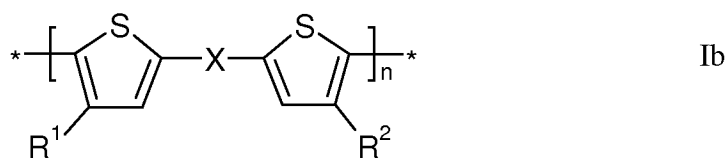
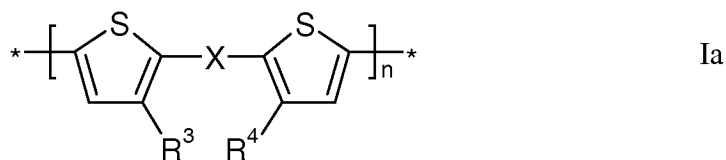
with the provisos that:

(1) X is not unsubstituted 1,4-phenylene, 2,5-dialkyl-1,4-phenylene, or 2,5-dialkoxy-1,4-phenylene; ~~and~~

(2) if X is naphthalene-2,6-diyl that is unsubstituted or substituted in 1-, 4-, 5-, and/or 8-position with alkoxy, dimethylsiloxane or oxymethyloxirane, then both R<sup>1</sup> and R<sup>2</sup> are other than H and/or both R<sup>3</sup> and R<sup>4</sup> are other than H; and

(3) in formula IIc, at least one of the r subscript is 1, 2, 3, or 4 and at least one R is F, Cl, alkyl having 1 to 15 carbon atoms, fluorinated alkyl having 1 to 15 carbon atoms, or alkoxy having 1 to 15 carbon atoms.

2. (Currently Amended): In a transistor device containing a semiconductor or charge transport material, the improvement wherein said material comprises at least one oligomer or polymer of formulae Ia - Ic:



wherein

X is  $-\text{C}\equiv\text{C}-$ , optionally substituted arylene, or optionally substituted heteroarylene,

$\text{R}^1 - \text{R}^4$  are independently of each other halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-,

P is a polymerisable or reactive group,

Sp is a spacer group or a single bond,

n is an integer  $> 1$ , and

Ar is arylene or heteroarylene,

wherein

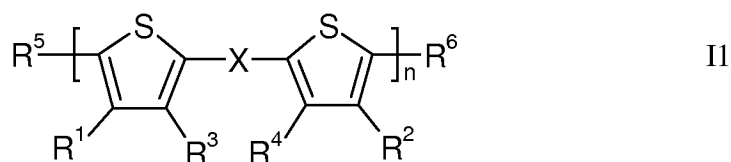
X is not unsubstituted 1,4-phenylene, 2,5-dialkyl-1,4-phenylene, or 2,5-dialkoxy-1,4-phenylene, and  
if X is naphthalene-diyl it is substituted or unsubstituted naphthalene-2,6-diyl or

naphthalene-4,8-diyl, ~~and~~

$\text{ArR}^1\text{R}^2$  is not naphthalene-2,6-diyl or naphthalene-4,8-diyl that is substituted in 1-, 4-, 5-, and/or 8-position with alkoxy, dimethylsiloxane or oxymethyloxirane, and

if X is biphenyl it is substituted by at least one F, Cl, alkyl having 1 to 15 carbon atoms, fluorinated alkyl having 1 to 15 carbon atoms, or alkoxy having 1 to 15 carbon atoms.

3. (Previously Presented): A device according to claim 1, wherein said oligomer or polymer is of formula II



wherein

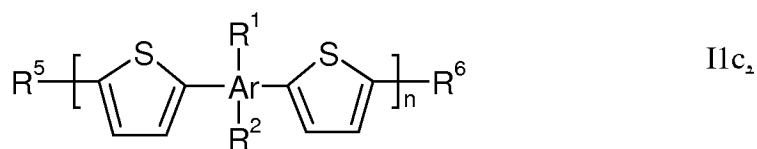
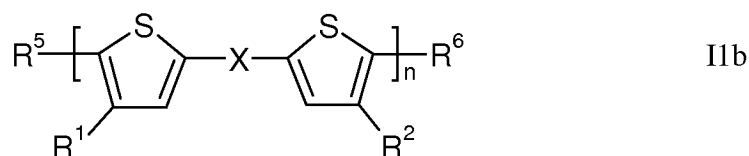
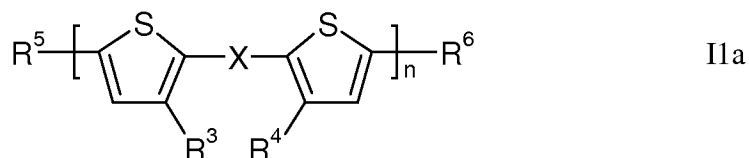
$\text{R}^5$  and  $\text{R}^6$  are independently of each other H, halogen,  $\text{B}(\text{OR}^7)(\text{OR}^8)$ ,  $\text{SnR}^9\text{R}^{10}\text{R}^{11}$ , straight chain, branched or cyclic alkyl with 1 to 20 C-atoms, which is unsubstituted, mono- or polysubstituted by F, Cl, Br, I or CN, and wherein one or more non-adjacent  $\text{CH}_2$  groups are optionally replaced, in each case independently from one another, by -O-, -S-, -NH-, - $\text{NR}^0$ -, - $\text{SiR}^0\text{R}^{00}$ -, -CO-, -COO-, -OCO-, -OCO-O-, - $\text{SO}_2$ -, -S-CO-, -CO-S-, -CH=CH- or -C $\equiv$ C- in such a manner that O and/or S atoms are not linked directly to one another, optionally substituted aryl, optionally substituted heteroaryl or P-Sp-,

$\text{R}^0$  and  $\text{R}^{00}$  are independently of each other H or alkyl with 1 to 12 C-atoms,

$\text{R}^7$  and  $\text{R}^8$  are independently of each other H or alkyl with 1 to 12 C-atoms, or  $\text{OR}^7$  and  $\text{OR}^8$  together with the boron atom form a cyclic group having 2 to 10 C atoms, and

$\text{R}^9$  to  $\text{R}^{11}$  are independently of each other H or alkyl with 1 to 12 C-atoms.

4. (Currently Amended): A device according to claim 2 ~~3~~, wherein said oligomer or polymer is selected from formulae IIa - IIc:



R<sup>5</sup> and R<sup>6</sup> are independently of each other H, halogen, B(OR<sup>7</sup>)(OR<sup>8</sup>), SnR<sup>9</sup>R<sup>10</sup>R<sup>11</sup>, straight chain, branched or cyclic alkyl with 1 to 20 C-atoms, which is unsubstituted, mono- or polysubstituted by F, Cl, Br, I or CN, and wherein one or more non-adjacent CH<sub>2</sub> groups are optionally replaced, in each case independently from one another, by -O-, -S-, -NH-, -NR<sup>0</sup>-, -SiR<sup>0</sup>R<sup>00</sup>-, -CO-, -COO-, -OCO-, -OCO-O-, -SO<sub>2</sub>-, -S-CO-, -CO-S-, -CH=CH- or -C≡C- in such a manner that O and/or S atoms are not linked directly to one another, optionally substituted aryl, optionally substituted heteroaryl or P-Sp-,

R<sup>0</sup> and R<sup>00</sup> are independently of each other H or alkyl with 1 to 12 C-atoms,

R<sup>7</sup> and R<sup>8</sup> are independently of each other H or alkyl with 1 to 12 C-atoms, or OR<sup>7</sup> and OR<sup>8</sup> together with the boron atom form a cyclic group having 2 to 10 C atoms, and

R<sup>9</sup> to R<sup>11</sup> are independently of each other H or alkyl with 1 to 12 C-atoms.

5. (Previously Presented): A device according to claim 1, wherein said material contains an oligo- or polymer of formula I having a regioregularity of at least 95%.

6. (Previously Presented): A device according to claim 1, wherein n is an integer

from 2 to 5000.

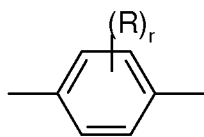
7. (Previously Presented): A device according to claim 1, wherein  $R^1$  to  $R^4$  are each independently selected from H, halogen, straight chain, branched or cyclic alkyl with 1 to 20 C-atoms, which is unsubstituted, mono- or polysubstituted by F, Cl, Br, I or CN, and wherein one or more non-adjacent  $CH_2$  groups are optionally replaced, in each case independently from one another, by -O-, -S-, -NH-,  $-NR^0$ -,  $-SiR^0R^{00}$ -, -CO-, -COO-, -OCO-, -OCO-O-, -SO<sub>2</sub>-, -S-CO-, -CO-S-, -CH=CH- or -C≡C- in such a manner that O and/or S atoms are not linked directly to one another, optionally substituted aryl, optionally substituted heteroaryl and P-Sp-, and  $R^0$  and  $R^{00}$  are independently of each other H or alkyl with 1 to 12 C-atoms.

8. (Withdrawn): A device according to claim 1, wherein  $R^1$  to  $R^4$  are each independently selected from C<sub>1</sub>-C<sub>20</sub>-alkyl that is optionally substituted with one or more fluorine atoms, C<sub>1</sub>-C<sub>20</sub>-alkenyl, C<sub>1</sub>-C<sub>20</sub>-alkynyl, C<sub>1</sub>-C<sub>20</sub>-alkoxy, C<sub>1</sub>-C<sub>20</sub>-thioalkyl, C<sub>1</sub>-C<sub>20</sub>-silyl, C<sub>1</sub>-C<sub>20</sub>-ester, C<sub>1</sub>-C<sub>20</sub>-amino, C<sub>1</sub>-C<sub>20</sub>-fluoroalkyl,  $(CH_2CH_2O)_m$  with m being an integer from 1 to 6, optionally substituted aryl, optionally substituted heteroaryl.

9. (Withdrawn): A device according to claim 1, wherein  $R^1$  to  $R^4$  are each independently selected from C<sub>1</sub>-C<sub>20</sub>-alkyl or C<sub>1</sub>-C<sub>20</sub>-fluoroalkyl.

10. (Cancelled):

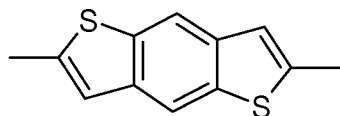
11. (Currently Amended): A device according to claim 1, wherein X is selected from formulae IIa, IIc, IId, IIe-IIi, IIm, IIn and their mirror images



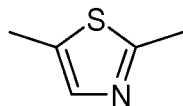
IIa



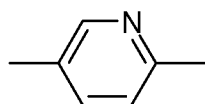
IIc



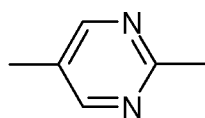
IIId



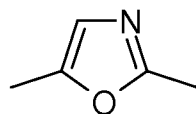
IIIf



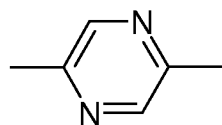
IIIg



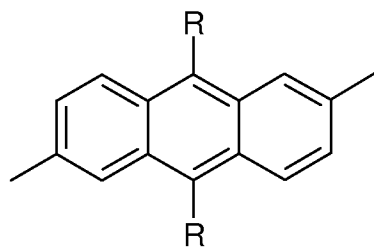
IIIf



IIIf



IIIm



IIIn

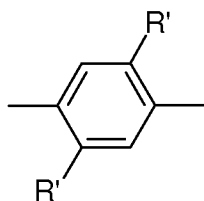


wherein

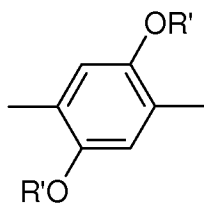
R is in each case independently halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-, and

r is 0, 1, 2, 3 or 4.

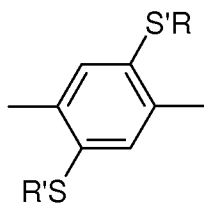
12. (Withdrawn): A device according to claim 2, wherein Ar(R<sup>1</sup>R<sup>2</sup>) is selected from formulae IIIa - IIIe and their mirror images



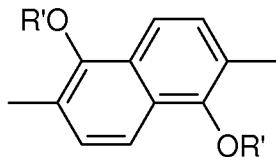
IIIa



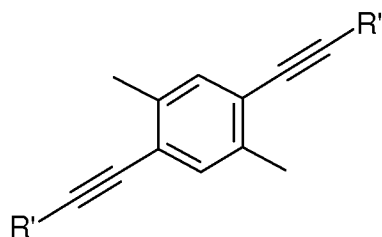
IIIb



IIIc



IIIId

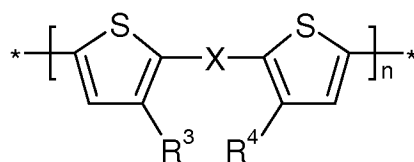


IIIe

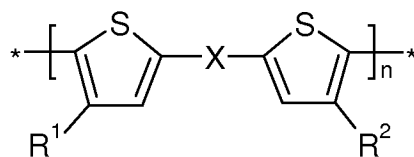
wherein

R' is in each case independently of each other H, halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-.

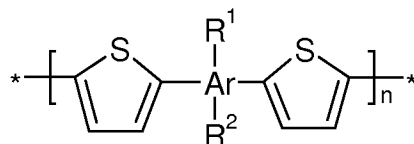
13. (Previously Presented): A oligomer or polymer of formula Ia - Ic



Ia



Ib



Ic

wherein

X is -CX<sup>1</sup>=CX<sup>2</sup>-, -C≡C-, optionally substituted arylene, or optionally substituted heteroarylene,

$X^1$  and  $X^2$  are independently of each other H, F, Cl or CN,

$R^1 - R^4$  are independently of each other halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-,

P is a polymerisable or reactive group,

Sp is a spacer group or a single bond, and

n is an integer  $> 1$ , and

Ar is arylene or heteroarylene,

with the provisos that

a) if X is unsubstituted thiophene-2,5-diyl, then at least one of  $R^{1-4}$  is alkyl that is mono- or polysubstituted by F, Cl, Br, I or CN, cycloalkyl that is mono- or polysubstituted by F, Cl, Br, I or CN, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-, and

b) X and  $Ar(R^1R^2)$  are different from dithienothiophene, 1,4-phenylene, 2,5-dialkyl- or 2,5-dialkoxy-1,4-phenylene, furan-2,5-diyl, 1-alkyl-1H-pyrrol-2,5-diyl, 9H-fluorene-2,7-diyl, 9,9-dialkyl-9H-fluorene-2,7-diyl, N-alkyl-9H-carbazole-2,7-diyl and anthracene-9,10-diyl, and

c)  $Ar(R^1R^2)$  is different from 2,5-dialkyl- or 2,5-dialkoxy-1,4-phenylene, naphthalene-2,6-diyl, naphthalene-4,8-diyl that is substituted in 1-, 4-, 5- and/or 8-position with alkoxy, dimethylsiloxane or oxymethyloxirane groups, 9,9-dialkyl-9H-fluorene-2,7-diyl and N-alkyl-9H-carbazole-2,7-diyl.

14. (Cancelled):

15. (Cancelled):

16. (Cancelled):
17. (Cancelled):
18. (Withdrawn): In a effect transistors (FET) or thin film transistor (TFT), containing semiconductor or charge transport material, the improvement wherein said material contains a mono-, oligo- or polymer according to claim 13.
19. (Cancelled):
20. (Withdrawn): In a battery containing electrode material, the improvement wherein said material contains a mono-, oligo- or polymer according to claim 13.
21. (Withdrawn): In a battery containing electrode material, the improvement wherein said material contains a mono-, oligo- or polymer according to claim 13.
22. (Withdrawn): In a photoconductor, the improvement wherein said photoconductor contains a mono-, oligo- or polymer according to claim 13.
23. (Withdrawn): In a method of electrophotographic recording, the improvement wherein a mono-, oligo- or polymer according to claim 13 is employed as electrophotographic material.
24. (Currently Amended): A device according to claim 1, wherein said device is a field effect transistor (FET).
25. (Previously Presented): A device according to claim 1, wherein said device is a thin film transistor or a thin film transistor array for flat panel displays.
26. (Previously Presented): In a security marking or device comprising a FET, the improvement wherein said FET is according to claim 24.
27. (Withdrawn): A mono-, oligo- and polymer, material or polymer as defined in claim 13, which is oxidatively or reductively doped to form conducting ionic species.

28. (Withdrawn): In a charge injection layer, planarising layer, antistatic film or conducting substrate or pattern for electronic applications or flat panel displays, the improvement wherein said layer, film, substrate, pattern or display contains a mono-, oligo- or polymer, material or polymer according to claim 27.

29. (Cancelled):

30. (Cancelled):

31. (Cancelled):

32. (Cancelled):

33. (Previously Presented): A device according to claim 4, wherein  $R^5$  to  $R^6$  are independently of each other H, halogen,  $B(OR^7)(OR^8)$ ,  $SnR^9R^{10}R^{11}$ , optionally substituted aryl, optionally substituted heteroaryl, P-Sp-, or straight chain, branched or cyclic alkyl with 1 to 20 C-atoms, which mono- or polysubstituted by F, Cl, Br, I or CN, and wherein one or more non-adjacent  $CH_2$  groups are optionally replaced, in each case independently from one another, by -O-, -S-, -NH-, -NR<sup>0</sup>-, -SiR<sup>0</sup>R<sup>00</sup>-, -CO-, -COO-, -OCO-, -OCO-O-, -SO<sub>2</sub>-, -S-CO-, -CO-S-, -CH=CH- or -C≡C- in such a manner that O and/or S atoms are not linked directly to one another.

34. (Previously Presented): A device according to claim 4, wherein  $R^5$  to  $R^6$  are independently of each other H, halogen,  $B(OR^7)(OR^8)$ ,  $SnR^9R^{10}R^{11}$ , optionally substituted aryl, optionally substituted heteroaryl, P-Sp-, or straight chain, branched or cyclic alkyl with 1 to 20 C-atoms wherein one or more non-adjacent  $CH_2$  groups are optionally replaced, in each case independently from one another, by -O-, -S-, -NH-, -NR<sup>0</sup>-, -SiR<sup>0</sup>R<sup>00</sup>-, -CO-, -COO-, -OCO-, -OCO-O-, -SO<sub>2</sub>-, -S-CO-, -CO-S-, -CH=CH- or -C≡C- in such a manner that O and/or S atoms are not linked directly to one another and which is unsubstituted or mono- or polysubstituted by F, Cl, Br, I or CN.

35. (Cancelled):

36. (Withdrawn): A mono-, oligo- or polymer according to claim 13, wherein said mono-, oligo- or polymer is of formula Ia and at least one of  $R^3$  and  $R^4$  is halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-.

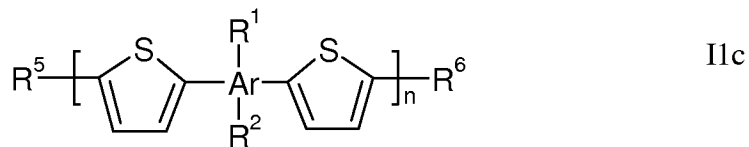
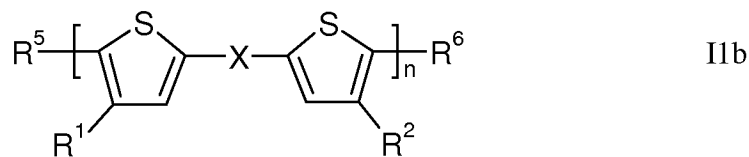
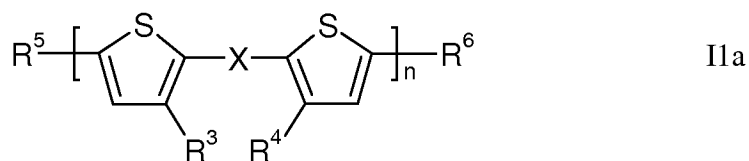
37. (Cancelled):

38. (Cancelled):

39. (Cancelled):

40. (Cancelled):

41. (Previously Presented): A device according to claim 1, wherein said mono-, oligo- or polymer is selected from formulae IIa - IIc:



wherein

~~P~~ is a polymerisable or reactive group,

~~Sp~~ is a spacer group or a single bond,

R<sup>1</sup> - R<sup>4</sup> are independently of each other halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp.

R<sup>5</sup> to R<sup>6</sup> are independently of each other H, halogen, B(OR<sup>7</sup>)(OR<sup>8</sup>), SnR<sup>9</sup>R<sup>10</sup>R<sup>11</sup>, straight chain, branched or cyclic alkyl with 1 to 20 C-atoms, which is unsubstituted, mono- or polysubstituted by F, Cl, Br, I or CN, and wherein one or more non-adjacent CH<sub>2</sub> groups are optionally replaced, in each case independently from one another, by -O-, -S-, -NH-, -NR<sup>0</sup>-, -SiR<sup>0</sup>R<sup>00</sup>-, -CO-, -COO-, -OCO-, -OCO-O-, -SO<sub>2</sub>-, -S-CO-, -CO-S-, -CH=CH- or -C≡C- in such a manner that O and/or S atoms are not linked directly to one another, optionally substituted aryl, optionally substituted heteroaryl or P-Sp-,

R<sup>7</sup> and R<sup>8</sup> are independently of each other H or alkyl with 1 to 12 C-atoms, or OR<sup>7</sup> and OR<sup>8</sup> together with the boron atom form a cyclic group having 2 to 10 C atoms,

R<sup>9</sup> to R<sup>11</sup> are independently of each other H or alkyl with 1 to 12 C-atoms,

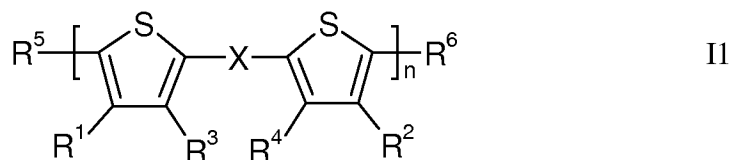
R<sup>0</sup> and R<sup>00</sup> are independently of each other H or alkyl with 1 to 12 C-atoms,

Ar is arylene or heteroarylene, and

n is an integer n ≥ 1.

42. (Cancelled):

43. (Previously Presented): In a transistor device containing a semiconductor or charge transport material, the improvement wherein said material comprises at least one monomer of formula II



$R^1 - R^4$  are independently of each other H, halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-,

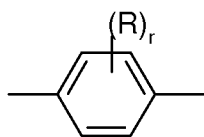
$R^5$  and  $R^6$  are independently of each other H, halogen,  $B(OR^7)(OR^8)$ ,  $SnR^9R^{10}R^{11}$ , straight chain, branched or cyclic alkyl with 1 to 20 C-atoms, which is unsubstituted, mono- or polysubstituted by F, Cl, Br, I or CN, and wherein one or more non-adjacent  $CH_2$  groups are optionally replaced, in each case independently from one another, by -O-, -S-, -NH-, -NR<sup>0</sup>-, -SiR<sup>0</sup>R<sup>00</sup>-, -CO-, -COO-, -OCO-, -OCO-O-, -SO<sub>2</sub>-, -S-CO-, -CO-S-, -CH=CH- or -C≡C- in such a manner that O and/or S atoms are not linked directly to one another, optionally substituted aryl, optionally substituted heteroaryl or P-Sp-,

$R^0$  and  $R^{00}$  are independently of each other H or alkyl with 1 to 12 C-atoms,

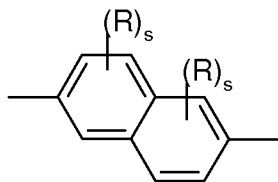
$R^7$  and  $R^8$  are independently of each other H or alkyl with 1 to 12 C-atoms, or  $OR^7$  and  $OR^8$  together with the boron atom form a cyclic group having 2 to 10 C atoms,

$R^9$  to  $R^{11}$  are independently of each other H or alkyl with 1 to 12 C-atoms,

X is -C≡C- or is selected from formulae IIa-IId, IIf-IIIi, IIIm, IIIn and their mirror images

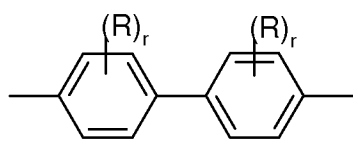


IIa

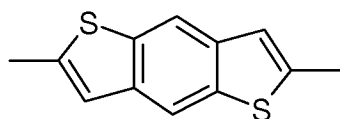


IIb

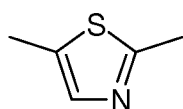




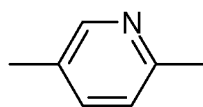
IIc



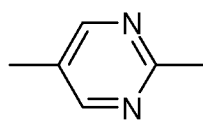
IIId



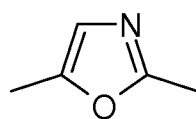
IIIf



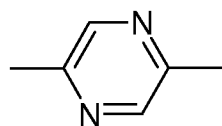
IIg



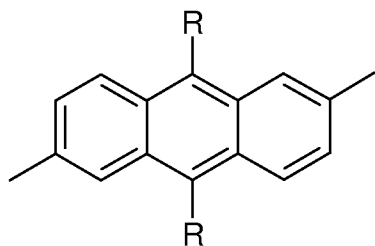
IIh



Iii



IIIm



IIIn

R is in each case independently H, halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-,

r is 0, 1, 2, 3 or 4,

s is 0, 1, 2 or 3,

P is a polymerisable or reactive group,

Sp is a spacer group or a single bond, and

n is 1,

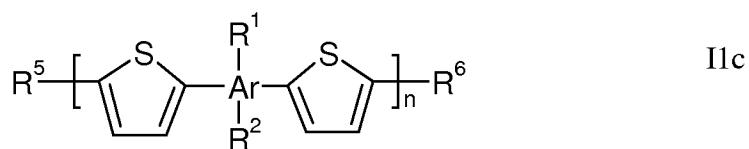
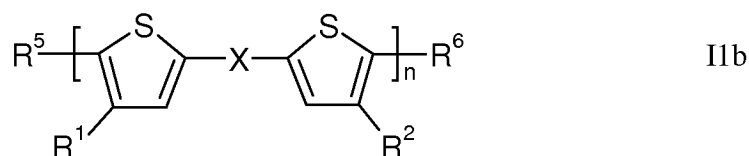
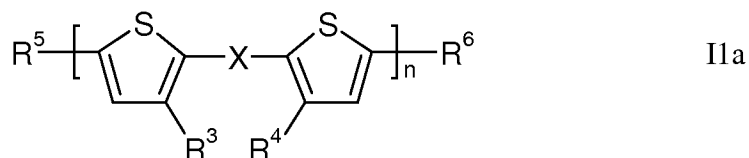
with the provisos that:

(1) X is not unsubstituted 1,4-phenylene, 2,5-dialkyl-1,4-phenylene, or 2,5-dialkoxy-1,4-phenylene; ~~and~~

(2) if X is naphthalene-2,6-diyl that is unsubstituted or substituted in 1-, 4-, 5-, and/or 8-position with alkoxy, dimethylsiloxane or oxymethyloxirane, then both R<sup>1</sup> and R<sup>2</sup> are other than H and/or both R<sup>3</sup> and R<sup>4</sup> are other than H; and

(3) in formula IIc, at least one of the r subscript is 1, 2, 3, or 4 and at least one R is F, Cl, alkyl having 1 to 15 carbon atoms, fluorinated alkyl having 1 to 15 carbon atoms, or alkoxy having 1 to 15 carbon atoms.

44. (Previously Presented): A device according to claim 43, wherein said monomer is selected from formulae IIa - IIc:

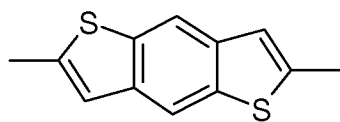


R<sup>1</sup> - R<sup>4</sup> are independently of each other halogen, optionally substituted alkyl, optionally substituted cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl, or P-Sp-, and

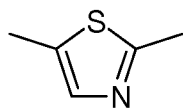
Ar is arylene or heteroarylene, wherein ArR<sup>1</sup>R<sup>2</sup> is not naphthalene-2,6-diyl or naphthalene-4,8-diyl that is substituted in 1-, 4-, 5-, and/or 8-position with alkoxy, dimethylsiloxane or oxymethyloxirane.

45. (New): A device according to claim 1, wherein R and R<sup>1</sup> to R<sup>4</sup> are each independently selected from H, halogen, straight chain, branched or cyclic alkyl with 1 to 20 C-atoms, which is unsubstituted, mono- or polysubstituted by F, Cl, Br, I or CN, and wherein one or more non-adjacent CH<sub>2</sub> groups are optionally replaced, in each case independently from one another, by -O-, -S-, -NH-, -NR<sup>0</sup>-, -SiR<sup>0</sup>R<sup>00</sup>-, -CO-, -COO-, -OCO-, -OCO-O-, -SO<sub>2</sub>-, -S-CO-, -CO-S-, -CH=CH- or -C≡C- in such a manner that O and/or S atoms are not linked directly to one another, optionally substituted aryl, optionally substituted heteroaryl and P-Sp-, and R<sup>0</sup> and R<sup>00</sup> are independently of each other H or alkyl with 1 to 12 C-atoms.

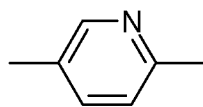
46. (New): A device according to claim 1, wherein X is selected from formulae IIa, IIb-IIi, IIm, IIo and their mirror images



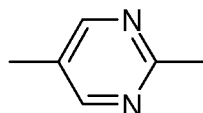
IIId



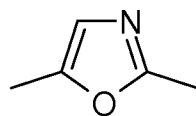
IIIf



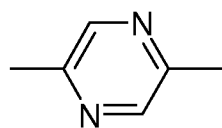
IIg



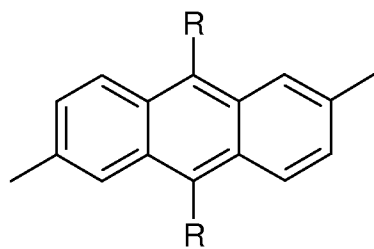
IIh



IIi



IIIm



IIIn.